

### **REMARKS**

Claims 11 and 17 are currently pending in the application.

Applicants would like to thank Examiner Tran for taking the time to discuss the outstanding rejections in this case with Applicants' representative on November 18, 2005. The substance of the discussion that took place is summarized in the relevant sections below.

#### **Priority**

The Office Action states that the issue of the priority claim in this case is still unresolved. There is some discrepancy as to whether Applicants filed certified copies of the two foreign priority documents UK0015443.5 and 0026099.2. Certified copies of these documents were filed with the Patent Office on September 17, 2003 in parent application serial no. 09/888,313. Applicants have enclosed a copy of the filing papers and stamped return postcard to evidence the filing of the priority documents in the parent application.

#### **Rejection of Claims 11 and 17 Under 35 U.S.C. §112, Second Paragraph**

The Office Action rejected claims 56-68 and 78-86 under 35 U.S.C. §112, second paragraph for alleged indefiniteness in the recitation of "first and second repertoires of single chain polypeptides are present on a solid surface in a first and second series of continuous, non-intersecting lines, respectively, such that each line of said first series intersects with each line of said second series, such that members of the first repertoire are juxtaposed to members of the second repertoire." The Office Action asserted that this phrase is vague because it is unclear that the intersection of the lines would generate a two- or three-chain polypeptide. The Office Action argues that the intersection of the lines "would result in a single amino acid interaction of the polypeptide chains." As confirmed during the interview with Examiner Tran, the Patent Office is reading the phrase "first and second repertoires of single chain polypeptides are present on a solid surface in a first and second series of continuous, non-intersecting lines, respectively, such that each line of said first series intersects with each line of said second series, such that members of the first repertoire are juxtaposed to members of the second repertoire" to encompass an embodiment wherein the actual amino acid sequence of a given repertoire member

is physically placed in a continuous line; that is, the series of amino acid molecules comprising the polypeptide are physically arranged in a continuous line. Thus, the point at which the first and second repertoire of amino acid lines intersects results in a single amino acid interaction. The Office Action concludes that, because of this interpretation, the claims are vague and indefinite. Applicants respectfully disagree.

It is well understood that during patent examination, the pending claims must be given their broadest **reasonable** interpretation consistent with the specification. In *re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). The interpretation given a particular claim term or phrase must be consistent with the interpretation that one of ordinary skill in the art would reach. In *re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999). Moreover, the law is clear that the standard for determining definitiveness is whether one of skill in the art would understand what is claimed. *Amgen v. Chugi*, 927 F.2d 1200 (C.A. Fed. 1991). Definitiveness is determined, in part, from a reading of the specification. *Texas Instruments, Inc. v. U.S. Intern. Trade Com'n*, 871 F.2d 1054 (C.A. Fed. 1989). The interpretation of the claims asserted by the Office Action is unreasonable, overly broad, and inconsistent with the description provided by the specification. While Applicants are not advocating reading limitations from the specification into the claims, Applicants nonetheless contend that the interpretation of the claims by the Office Action is so far from anything taught or envisioned by the specification as to constitute an unreasonable interpretation. One of skill in the art, from a reading of the claims and specification would not reasonably conclude that the claims encompass the type of amino acid arrangement advocated by the Office Action. Moreover, the interpretation asserted by the Office Action (that each amino acid molecule of a given polypeptide is arranged in the form of a continuous line), is not only beyond the reasonable scope of the claim, but is so far beyond the scope of what is even technically feasible that the interpretation is clearly unreasonable.

The scope and meaning of the instantly claimed invention is clear and unambiguous. The claims recite a method for generating a two- or three-chain polypeptide library and require that a first and second repertoire are present on a solid surface in a first and second series of continuous non-intersecting lines. The claims require that the lines of the first and second repertoires intersect with each other so that the members of the first repertoire are juxtaposed with members

of the second repertoire so as to form a multi-chain polypeptide. The claims do not encompass a scenario in which the amino acid residues of a given member polypeptide are physically arranged in the form of a line. During the telephone interview, the Examiner agreed that the scope accorded to the claims as the basis of the rejection was unreasonably broad, and agreed to reconsider and withdraw the rejection. The current claims are clear and unambiguous, and Applicants request that the rejection be reconsidered and withdrawn.

**Rejection of Claims 11 and 17 Under 35 U.S.C. §103(a)**

The Office Action rejected claims 11 and 17 under 35 U.S.C. §103(a) as allegedly unpatentable over the teachings of Wagner et al. in view of Winkler et al. The Office Action asserts that Winkler et al. teach a flow channel method for making large arrays of polymers. The Office Action asserts that Wagner et al. teach forming an array of capture agents on a solid support, and that Wagner et al. teach that the capture agents can include antibody fragments. The Office Action concludes that it would have been obvious to combine the teachings of both Wagner et al. and Winkler et al. to arrive at the claimed invention. Applicants respectfully disagree.

In order to the prior art reference (or references when combined) must teach or suggest *all the claim limitations*. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Whether considered alone or together, Wagner et al. and Winkler et al fail to teach a method for generating a combinatorial library of two- or three-chain polypeptides. Wagner et al. merely teach applying a capture agent, such as an antibody or antibody fragment, on a solid surface to form an array. Wagner et al. do not teach a method of arraying separate repertoires of single chain polypeptides to form combinatorial libraries of two- or three-chain polypeptides. Moreover, regardless of the array format taught by Wagner et al., there is no teaching in Wagner et al. of a method for generating polypeptide libraries of two- or three-chain polypeptides from separate repertoires of single-chain polypeptide. Winkler et al. do not supplement the deficient teachings of Wagner et al. Winkler merely teaches a method of generating polymers on a substrate by flowing the constituents of the polymer into channels in or on the substrate. Winkler et al. do not teach or even suggest a method for generating polypeptide libraries of two-

or three-chain polypeptides from separate repertoires of single-chain polypeptide. Thus, whether considered alone or together, the teachings of Wagner et al. and Winkler et al. do not teach each element of the claimed invention. Accordingly, the instant claims are not obvious in view of the teachings of Wagner et al. and Winkler et al., and Applicants respectfully request that the rejection be reconsidered and withdrawn.

Applicant submits that all claims are allowable as written and respectfully request early favorable action by the Examiner. If the Examiner believes that a telephone conversation with Applicant's attorney/agent would expedite prosecution of this application, the Examiner is cordially invited to call the undersigned attorney/agent of record.

Date:

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